

**SHELTER ISLAND WATER ADVISORY COMMITTEE –
March, 2023, Height data report **DRAFT****

Summary/Conclusion - “Guarded”

Islanders should maintain *voluntary water conservation measures*.

Three of the Big 4 values remain below the median values this month, although all gained in aquifer level. The rate of aquifer recharge in March could be considered normal, no better, no worse than normal. April through April 12 has been dry with less than ¼ inch of precipitation..

Discussion:

Section 1A and 1B - National Drought Monitoring and OUTLOOK Forecasting:

Shelter Island remains classified as “D0 Abnormally Dry”.

Section 2 – Chart showing “ranking of monthly well heights by percentile of historic values.”

The chart is a graphic of the data for the Big Four feeder wells showing the percentile rank for the current month versus history for each month.

Wells remain at 41%.

Section 3 - Table of well readings compared to historic and median values.

Table “Well readings compared to the month’s Median for each well.” Current month readings compared to the month history for each well in the month.

Shallower wells above median, deeper Big 4 wells slightly below median.

Section 4 - “Comparison of the size of the change in current well readings compared to the historic Median change for that month.” *Table showing the current month’s change in well height from previous and comparison to change history.*

Section 5 – Raw well height readings for the Big 4 wells

Raw well height graph is independent of the median history. It presents a direct comparison of aquifer heights. A strong increase noted, typical for March.

Rainfall Status: Ken Reports:

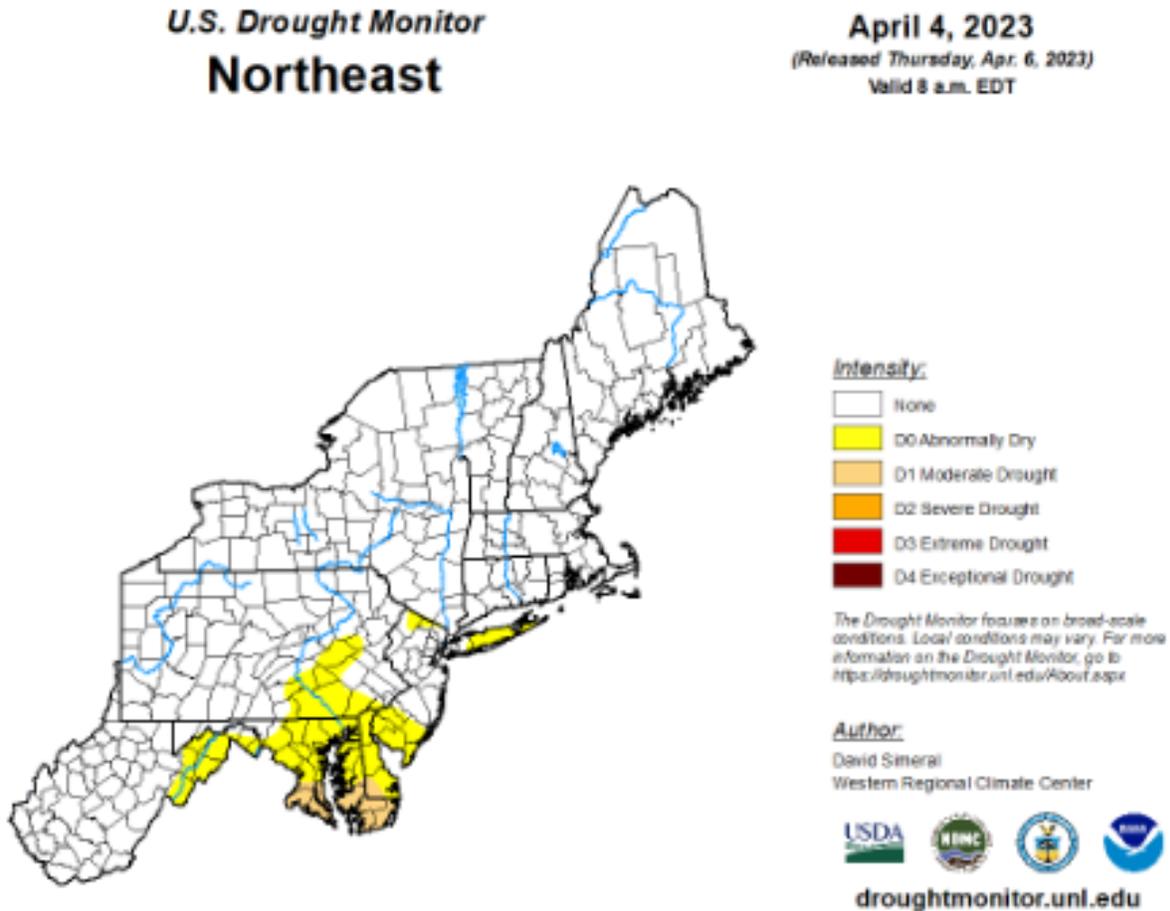
Precipitation Report						
Year	2023	2022	2021	2020	2019	2018
Month to date	1.25	4.11	3.63	3.59	2.84	5.18
Year Precipitation to this date in 2023						
	2023	2022	2021	2020	2019	2018
YTD	7.53	8.06	6.61	5.71	8.68	8.60

Well below average amount precipitation for February 2023 but about normal as to YTD numbers. It will be important to see if precipitation returns to average for March.

Shelter Island Water Advisory Committee March 2023

Section 1 National Drought Monitoring

A: CURRENT CONDITIONS: Shelter Island remains classified as “D0 Abnormally Dry”.



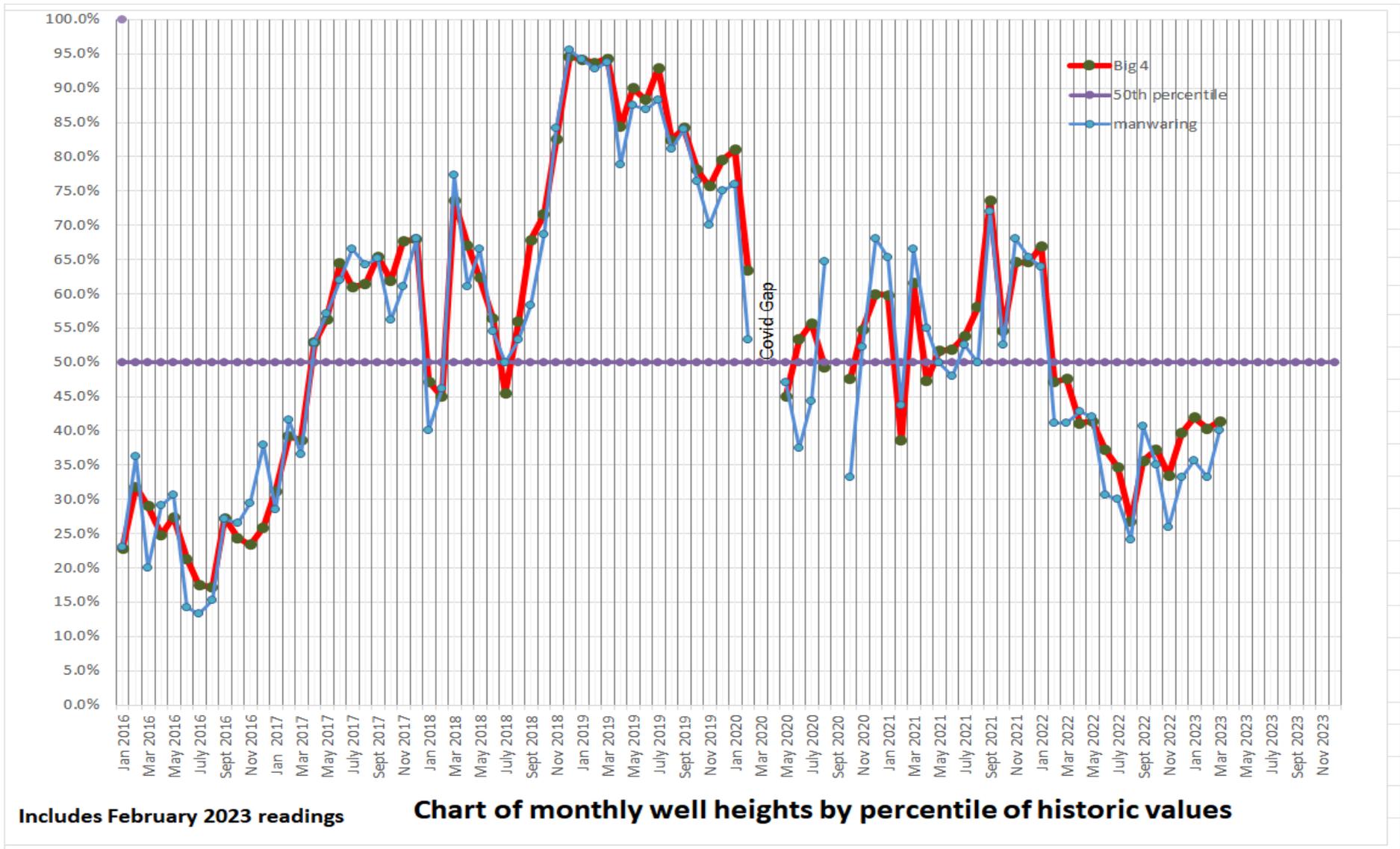
B: ONE- and THREE-MONTH DROUGHT OUTLOOK:

[Forecast per NIDIS [National Integrated Drought Information System]]

No forecast is available as the NIDIS [National Integrated Drought Information System] system does not forecast changes for areas in the “D0 Abnormally Dry” status.

Section 2 - Ranking of monthly well heights by percentile of historic values.

Big 4 wells the same as last month (41% of median). Three of the Big 4 wells remain under the median value.



Section 3 – Comparison showing readings for the month compared to the median value history

Shallower wells above median, deeper Big 4 wells slightly below median.

Well readings in FEET compared to the the months Median for each well for:	Manhansett, Well #1 Big 4	Rocky Point Ave/Belvdr Well #2	Big Ram Island Well #3	Manwaring Rd Well #4	Congdon Well #5 Big 4	Brander/Lillip ut Well #6	Menantic Rd Well #7	Deer Park Lane Well #8	LITTLE RAM Well #9	DERING HARBOR Well #10	HAY BEACH Well #11	Goat Hill Well #12 Big 4	Shorewood Well #13
March 2023	44	14	4	30	47	21	11	19	1	9	9	5	7
Median Value	3.01	1.77	1.28	4.20	5.70	1.99	1.72	3.43	1.18	1.75	2.14	6.76	1.49
Reading March 23 2023	3.12	2.23	1.58	4	5.49	2.76	2.37	3.79	1.18	2.14	2.57	6.26	1.9
Prior Month	2.96	2.25	2.17	3.79	5.32	2.21	2.06	3.39	2.22	2.2	2.47	6.14	1.88
Change from previous	0.16	(0.02)	(0.59)	0.21	0.17	0.55	0.31	0.40	(1.04)	(0.06)	0.10	0.12	0.02
	Big 4			Big 4	Big 4							Big 4	
					10.16								
	7.01				8.36								
	5.21				7.68								
	4.37				7.55								
	4.29				7.44								
	4.28			8.45	7.35								
	4.18			6.86	7.32								
	3.95			6.05	7.19								
	3.91			6.00	7.09								
	3.89			5.57	7.02	4.94							
	3.87			5.27	6.85	3.03		6.94					
	3.80	4.47		5.24	6.79	2.76		4.84					
	3.74	2.61		5.15	6.62	2.74	3.80	4.52					
	3.57	2.30		4.87	6.55	2.33	2.49	4.17			5		
	3.54	2.23	2.5	4.79	6.38	2.29	2.37	4.03	1.75		3.41	10.07	3.84
	3.51	2.15	1.92	4.77	6.28	2.21	2.21	3.97	1.72	2.44	2.87	8.13	2.25
	3.51	2.05	1.74	4.74	6.17	2.19	2.01	3.97	1.65	2.39	2.57	7.87	1.95
	3.40	2.03	1.58	4.73	6.03	2.17	2.01	3.85	1.56	2.24	2.54	7.12	1.9
	3.35	1.97	1.45	4.72	5.84	2.15	1.99	3.82	1.48	2.14	2.40	7.09	1.83
	3.24	1.93	1.43	4.54	5.75	2.14	1.91	3.79	1.43	1.99	2.31	7.01	1.74
	3.18	1.88	1.43	4.54	5.75	2.09	1.88	3.55	1.21	1.97	2.28	6.94	1.74
	3.12	1.83	1.42	4.23	5.73	2.07	1.86	3.54	1.18	1.85	2.25	6.92	1.57
	3.04	1.80	1.38	4.22	5.73	2.05	1.77	3.46	1.18	1.76	2.15	6.80	1.52
MEDIAN	3.01	1.77	1.28		5.70	1.99	1.72	3.43			2.14	6.76	1.49
	2.93	1.76	1.24	4.18	5.68	1.98	1.71	3.43	1.12	1.74	2.13	6.52	1.47
	2.93	1.66	1.18	4.10	5.57	1.98	1.71	3.43	1.03	1.65	2.11	6.45	1.47
	2.91	1.65	1.14	4.10	5.49	1.96	1.68	3.42	0.99	1.57	2.03	6.26	1.45
	2.80	1.63	1.13	4	5.47	1.89	1.59	3.41	0.95	1.55	2.01	6.26	1.44
	2.78	1.62	1.08	3.98	5.42	1.85	1.58	3.38	0.90	1.55	1.91	6.16	1.34
	2.76	1.58	1.05	3.92	5.40	1.80	1.53	3.37	0.89	1.49	1.90	6.02	1.28
	2.73	1.57	0.96	3.82	5.40	1.74	1.49	3.31	0.68	1.49	1.85	5.79	1.23
	2.72	1.56	0.92	3.72	5.37	1.68	1.38	3.24	0.62	1.18	1.52	5.39	1.15
	2.71	1.56	0.92	3.70	5.34	1.62	1.34	3.22			1.50	5.00	1.06
	2.60	1.54		3.69	5.19	1.62	1.26	3.21			1.37		0.87
	2.47	1.28		3.69	5.03	1.56	1.25	3.08			0.88		
	2.45	1.18		3.60	4.98	1.45	1.04	3.01					
	2.40	1.05		3.47	4.95	1.43		2.57					
	2.40			3.35	4.94	1.11		2.41					
	2.35			3.26	4.87	1.02		2.14					
	2.30			2.67	4.75			2.11					
	1.97			2.46	4.57								
	1.94			2.45	4.50								
	1.91				4.13								
	1.77				3.97								
	1.74				3.94								
	1.71				3.91								
					3.56								
	Big 4			Big 4	Big 4							Big 4	
CURRENT MONTH ANALYSIS													
percentrank current read to historic range	55%	88%	83%	40%	43%	93%	91%	69%	50%	80%	82%	28%	80%
Percent to median	4%	26%	23%	-5%	-4%	39%	38%	10%	0%	22%	20%	-7%	28%
historic minimum	1.71	1.05	0.00	2.45	3.56	1.02	0.00	2.11	0.00	0.00	0.00	0.00	0.00
Current height compared to median (feet)	0.11	0.47	0.30	(0.20)	(0.21)	0.78	0.66	0.36	0.00	0.39	0.43	(0.50)	0.41

Section 4 - “Comparison of the size of the change in current well readings compared to the historic Median change for that month.”
 Table showing the current month’s change in well height from previous and comparison to change history.

March 2023 SIZE OF CHANGE FROM PREVIOUS MONTH													
Measure in FEET	Manhansett, Well #1	Rocky Point Ave/Belvedere Well #2	Big Ram Island Well #3	Manwaring Rd Well #4	Congdon Well #5	Brander/Liliput Well #6	Menantic Rd Well #7	Deer Park Lane Well #8	Little Ram Well #9	Dering Harbor Well #10	Hay Beach Well #11	Goat Hill Well #12	Shorewood Well #13
Well #	1	2	3	4	5	6	7	8	9	10	11	12	13
Change prior month	0.26	0.35	0.60	0.15	0.37	0.16	2.06	0.28	0.76	0.38	0.29	0.21	0.42
Change this month	0.16	(0.02)	(0.59)	0.21	0.17	0.55	0.31	0.40	(1.04)	(0.06)	0.10	0.12	0.02
Med Change	0.11	(0.02)	(0.01)	0.21	0.35	0.01	0.07	0.16	0.00	(0.05)	0.04	0.17	0.04
	Big 4			Big 4	Big 4							Big 4	
					0.62							1.47	
	0.45	0.35	0.45		0.54	0.61	0.87					0.51	0.60
	0.44	0.34	0.38		0.54	0.55	0.46	0.69				0.50	0.36
	0.35	0.22	0.27	1.01	0.51	0.47	0.36	0.56				0.37	0.32
	0.33	0.16	0.24	0.35	0.49	0.25	0.31	0.46	0.26	0.35	0.41	0.35	0.30
	0.27	0.15	0.19	0.76	0.47	0.23	0.29	0.40	0.23	0.18	0.29	0.30	0.25
	0.16	0.14	0.18	0.55	0.45	0.23	0.28	0.32	0.14	0.17	0.10	0.30	0.16
	0.12	0.12	0.10	0.47	0.44	0.15	0.15	0.27	0.14	0.10	0.09	0.28	0.15
	0.12	(0.01)	0.08	0.37	0.41	0.13	0.11	0.24	0.10	0.03	0.08	0.25	0.14
	0.12	(0.02)	0.01	0.31	0.40	0.06	0.08	0.19	0.07	0.02	0.06	0.17	0.07
MEDIAN							0.07	0.16	0.00	(0.05)	0.04	0.17	
	0.09	(0.07)	(0.03)	0.21	0.29	(0.03)	0.05	0.03	(0.08)	(0.06)	0.01	0.14	0.02
	0.05	(0.07)	(0.07)	0.19	0.26	(0.04)	0.03	0.02	(0.20)	(0.07)	(0.05)	0.12	0.01
	0.02	(0.11)	(0.09)	0.11	0.21	(0.06)	(0.07)	0.02	(0.45)	(0.12)	(0.06)	0.11	(0.05)
	0.00	(0.12)	(0.22)	0.08	0.17	(0.08)	(0.09)	0.02	(0.65)	(0.27)	(0.06)	0.10	(0.10)
	(0.01)	(0.24)	(0.27)	0.05	0.16	(0.10)	(0.16)	(0.10)	(1.04)	(0.74)	(0.10)	0.09	(0.11)
	(0.05)	(0.37)	(0.31)	(0.02)	0.09	(0.20)	(0.17)	(0.13)	(1.32)	(0.78)	(0.16)	0.06	(0.11)
	(0.05)	(1.25)	(0.44)	(0.12)	(0.03)	(0.23)	(0.21)	(0.20)				0.05	(0.15)
	(0.10)		(0.59)	(0.11)	(0.07)	(0.59)	(0.22)	(0.29)				(0.04)	(0.18)
	(0.15)		(0.79)		(0.09)	(0.72)	(0.65)						(0.37)
					(0.41)								
March	Big 4			Big 4	Big 4							Big 4	
History of Change on record in Current month from Previous month													
# of tests	18	16	18	15	20	18	19	17	13	13	13	19	18
# with gain in height	12	7	9	12	16	9	12	13	6	6	8	18	11
History # times well gained on March	12/18	7/16	9/18	12/15	16/20	9/18	12/19	13/17	6/13	6/13	8/13	18/19	11/18
Current change compared to Median change	0.05	(0.01)	(0.58)	0.00	(0.18)	0.54	0.24	0.24	(1.04)	(0.01)	0.06	(0.05)	(0.02)

Section 5 - "Raw" aquifer readings for the Big 4 wells.

